

# BSB 2.3-12 (12V 2.3AH)



## Specification

Nominal Voltage	12V	
Nominal Capacity (20hr / 20°C / 1.75 V/C)	2.3AH	
	20 hour rate (0.115A, 10.5V)	2.3Ah
	10 hour rate (0.20A, 10.5V)	2.0Ah
	5 hour rate (0.37A, 10.5V)	1.85Ah
	1 hour rate (1.46A, 9.6V)	1.46Ah
Internal Resistance	Fully Charged battery 68°F(20°C) ≤60 mOhms	
Self-Discharge	3% of capacity declined per month at 20°C (average)	
	SSB series batteries may be stored for up to 6 months at 68°F(20°C) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	
Dimension	Length (mm / inch)	178 / 7.01
	Width (mm / inch)	35 / 1.38
	Height (mm / inch)	61/ 2.40
	Total Height (mm / inch)Ø	67/ 2.64
Approx. Weight (Kg / lbs)	0.99 / 2.18	
Operating Temperature Range (temporarily – see our manual)	Discharge : -20~50°C	
	Charge : -10~50°C	
	Storage : -20~50°C	
Max. Discharge Current 68°F(20°C)	34.5A(5s)	
Short Circuit Current	115A	
Charge Methods: Constant Voltage Charge 68°F(20°C)	Cycle use	2.40-2.45VPC
	Maximum charging current	0.92A
	Temperature compensation	-30mV/°C
	Standby use	2.23-2.30VPC
	Temperature compensation	-20mV/°C
Life expectancy	6~9 years at 20°C with charge voltage 2.25V/cell	

## Applications

- ◆ Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- ◆ Not restricted for air transport-complies with IATA/ICAO Special Provision A67.
- ◆ UL-recognized component.
- ◆ Can be mounted in any orientation.
- ◆ Computer designed lead, calcium tin alloy grid for high power density.
- ◆ Long service life, float or cyclic applications.
- ◆ Maintenance-free operation.
- ◆ Low self discharge.
- ◆ Case and cover available in both standard and flame retardant ABS.



Conform to:  
IEC60896-21&22 and/or IEC61427

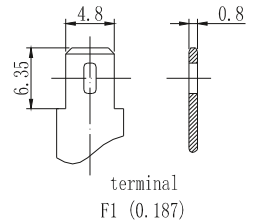
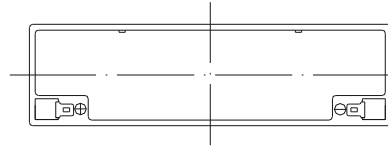
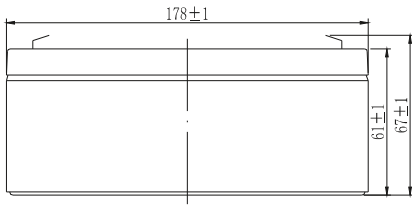
## Discharge Constant Current (Amperes at 68°F20°C)

End Point Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	9.00	5.70	4.40	2.50	1.46	0.59	0.41	0.22	0.120
1.65V	8.64	5.47	4.27	2.41	1.38	0.57	0.40	0.22	0.120
1.70V	8.27	5.23	4.13	2.29	1.29	0.54	0.39	0.21	0.120
1.75V	7.89	4.98	3.98	2.16	1.19	0.49	0.37	0.20	0.115
1.80V	7.50	4.72	3.82	2.02	1.08	0.45	0.34	0.18	0.103

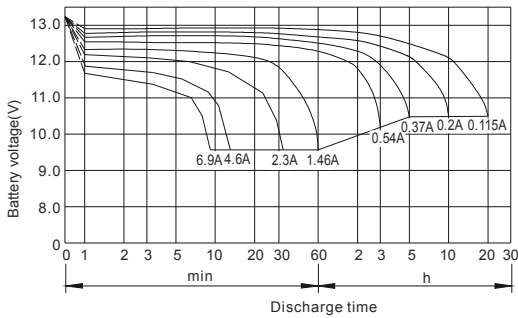
## Discharge Constant Current (Watts at 68°F20°C)

End Point Volts/Cell	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	17.5	11.00	8.50	4.83	3.50	2.78	1.54	1.08	0.75
1.65V	16.7	10.50	8.14	4.52	3.38	2.46	1.45	1.04	0.74
1.70V	16.0	10.00	7.86	4.28	3.25	2.28	1.35	0.98	0.73
1.75V	15.3	9.46	7.56	4.02	3.11	2.09	1.14	0.93	0.71
1.80V	14.4	8.94	7.24	3.74	3.00	1.86	1.02	0.84	0.62

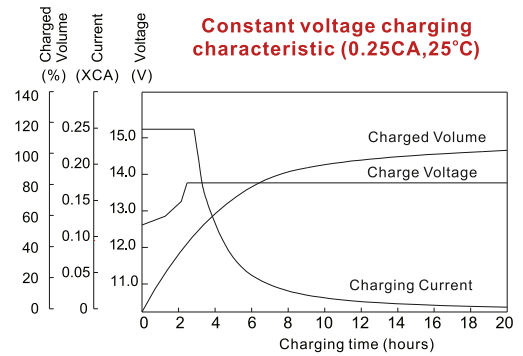
# Dimensions



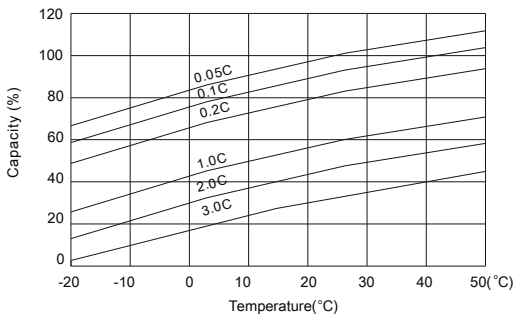
## Discharge Characteristics



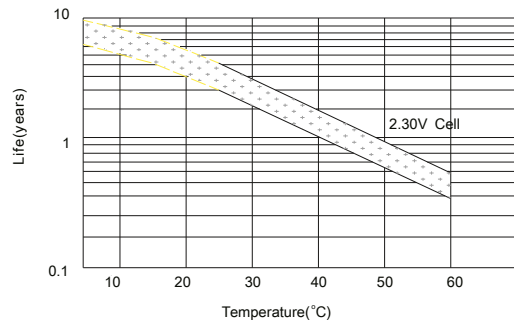
## Float Charging Characteristics



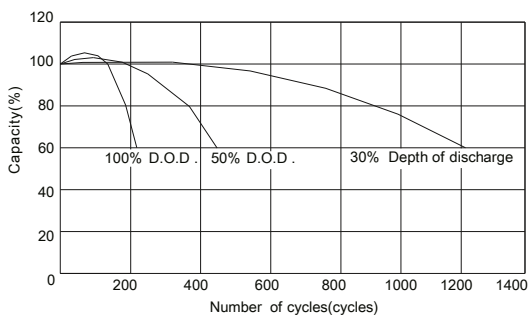
## Temperature Effects in Relation to Battery Capacity



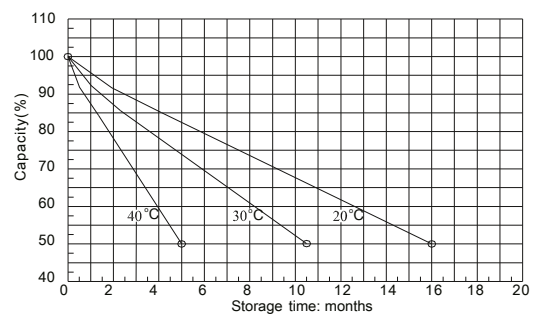
## Effect of Temperature on Long Term Float Life



## Cycle Life in Relation to Depth of Discharge



## Self Discharge Characteristics



**A** No supplementary charge required  
(Carry out supplementary charge before use if 100% capacity is required.)

Supplementary charge required before use. Optional charging way as below:  
**B** 1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.  
 2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.  
 3. Charged for 8-10 hours at limited current 0.05CA.

**C** Supplementary charge may often fail to recover the capacity.  
The battery should never be left standing till this is reached.